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Technology Activity Critical Thinking

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1. Explore the Intel Seeing Reason Tool. Click on the Overview and Benefits link. How does the tool facilitate students’ critical thinking?  
     
   **Students working with the “Seeing Reasoning Tool” are forced to exercise their critical thinking skills directly. Primarily, “**Students organize the factors that influence or affect a problem and show how these factors interact with each other in cause-and-effect relationships.” The visual nature of this tool encourages discussion among groups of students, while also allowing more thorough evaluation by teachers (teachers can literally see how a student is thinking). Like with the visual ranking tool, students are also forced to consider the relative importance of different causal factors, which pushes the critical thinking even further.
2. Click on Try the Tool and then click on the Demo and read the Project Description Road Safety. The map shows student’s ideas about causes of traffic jams. Create a new factor, describe its relationship to traffic jams, and add it to the map. Explain what you did.  
     
   **I added the factor, “Number of lane changes” to the map. Changing lanes ids on of the most common times to get into an accident, so as the number of cars changing lanes increases, so will the number of accidents. Because the number of accidents increases the amount of traffic jams, this is an important factor to consider.**
3. Next click on the Tutorial (underneath Demo on the Try the Tool page) and view the animation. What are the key steps a teacher must take to set up the Seeing Reason Tool and engage students in using the tool?

* Get the class to agree on a definition of the problem,
* Brainstorm potential causal factors (teams of two are generally most effective)
* Students place factors on the map (including a description for how to measure the factor)
* Teacher probes ideas for clarification as needed
* Students place arrows on map to describe relationships between factors
* Students gather data and then use that data to refine their maps
* Students reflect on their findings, and determine the most important information for decision making

1. Click on the Project Examples link and explore the Project Ideas and Unit Plans. How do the examples stimulate your thinking of how to use the Seeing Reason Tool?  
     
   **Since I am working in an English classroom, I was very interested to see how this tool might be used to evaluate a novel. I think it is an ideal way to analyze a novel’s plot because the causal relationships in literature are almost always many and varied. Much like with the visual ranking tool, it is not the final determination that would matter here, but the depth of analysis this type of activity requires. Given sufficient computer access I feel this tool would be an excellent tool in any English classroom.**
2. Explore the Intel Showing Evidence Tool. Click on the Overview and Benefits link. How does the tool facilitate students’ critical thinking?

The “Showing the evidence” tool walks students through the process of argument development and analysis. Since so much of education relies on a student’s ability to effectively communicate an argument, this tool directly trains a skill demanded in almost every classroom. Moreover, critical thinking is encouraged as students weigh different pieces of evidence against each other. Also, much like the other Intel learning tools, the visual nature of the “Showing the Evidence Tool” allows teachers to accurately trace a student’s reasoning, which ultimately allows an increased amount of individually tailored instruction.

1. Click on Try the Tool and watch the Animated Overview to learn how to set up an account and copy a project into the Teacher Workspace. Next click on the Secondary Demo and read the Project Description for Serious Malady Explain how each of the assessments provides guidance to students throughout the project.

One of the most useful features of this tool is that every piece of data (or claim) is supported thoroughly. If a student is not sure why a piece of information is applicable, then they just click on it to read the background info. Further, the students are able to analyze source credibility information, which is a very important aspect of argumentation.

1. What are the key steps a teacher must take to set up the Showing Evidence Tool and engage students in using the tool?

First the teacher goes to the project set-up page in the Teacher Workspace. There, the teacher describes the project, creates any pre-existing claims or evidence (if desired), and sets up student teams. The project wizard will walk the teacher through these steps. Then, the students are released to experiment and analyze. Importantly, once the students have reached a conclusion, the teacher must go back over their results, and offer feedback.

8) Click on the Project Examples link and explore the Project Ideas and Unit Plans. How do the examples stimulate your thinking of how to use the Showing Evidence Tool?

I think this could be a very useful to for having students formulate an essay. It seems that once a student has a strong argument to work with, the process of writing a paper goes much more smoothly. Perhaps there is a way for students to set up a teacher account, and plug in their own data, and then manipulate it to form a strong argument. This would be very effective if the entire class was writing to a single prompt.